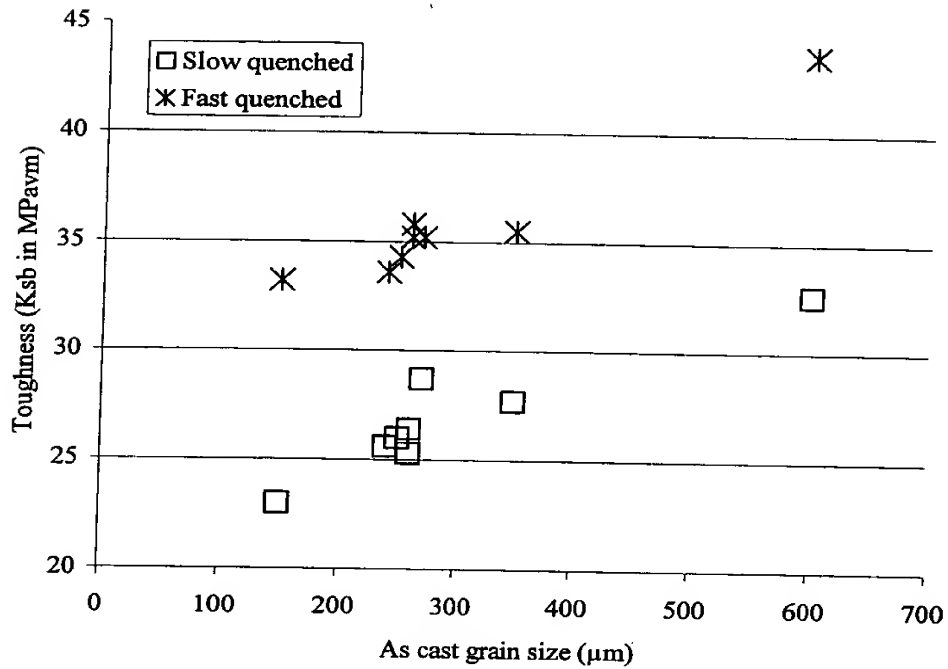


Figure 1

Toughness as a function of as-cast grain size.



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Figure 2

Illustration of toughness improvements for the invention plate with respect to the control specimens.

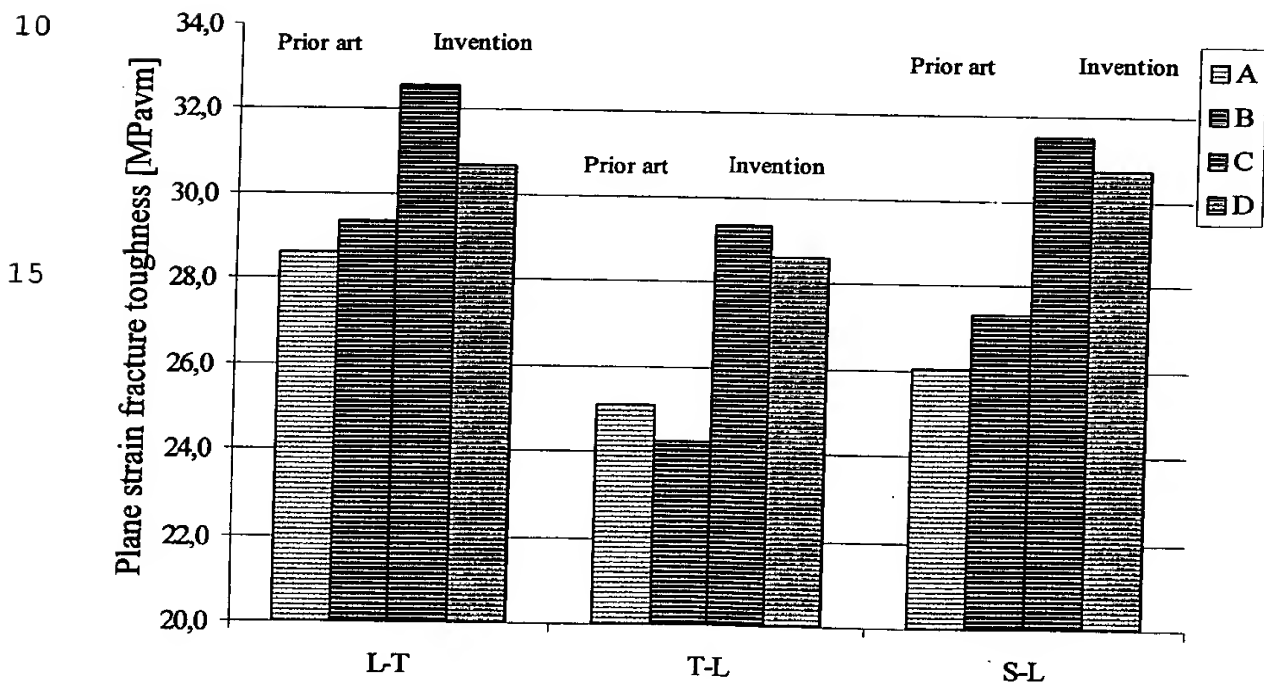
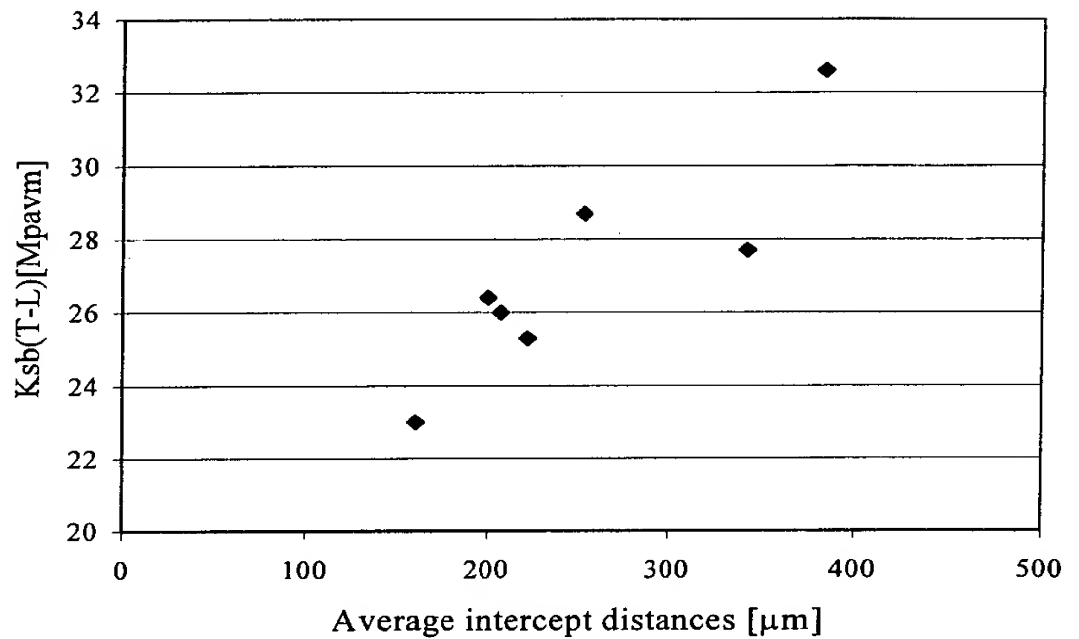


Figure 3

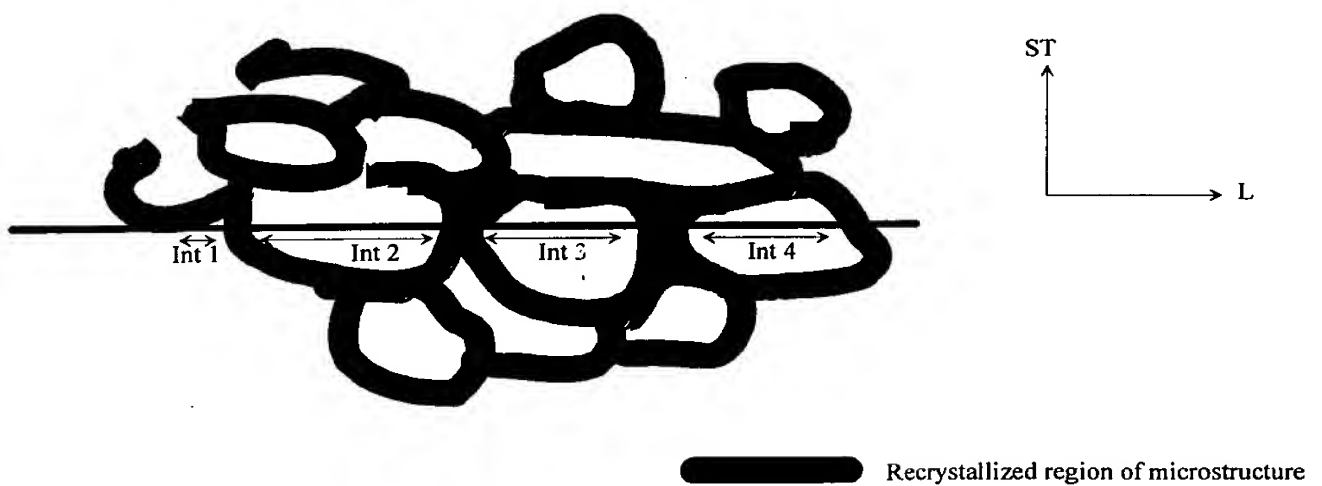
Relationship between average intercept distances and fracture toughness



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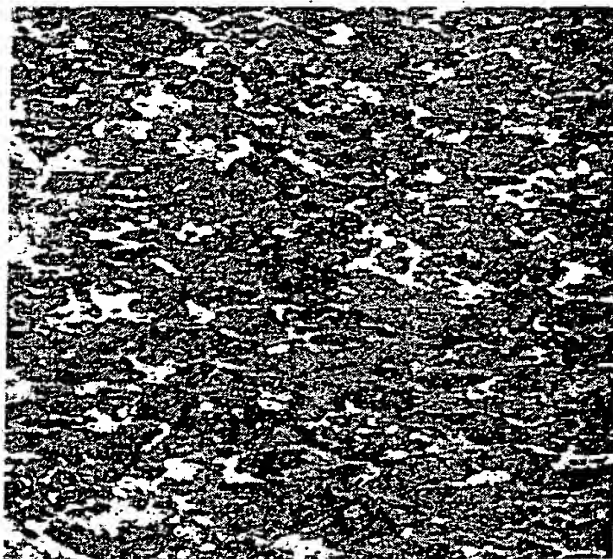
Figure 4

Schematic illustration of the approach used to quantify the characteristic intercept distance between recrystallized zones for the products described above.



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a.



b.



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